

(5.1) Submission of Final Design Specifications

Prior to entering into a contract for the procurement of a new satellite to be operated at the 118.7°W orbital position, Telesat must demonstrate to the Department that the satellite design will meet the C, Ku and Ka band coverage and capacity capabilities set out in its application of March 15, 2001, and that the satellite will comply with all technical and operational requirements as set out in Articles S21 and S22 of the ITU *Radio Regulations*. To this end, Telesat shall submit, by the Milestone 1 date above, the final design specifications for the new satellite to the Department for approval.

(5.2) Final Signature of Contracts

Within 15 days of final signature of the Milestone 2 contracts, Telesat must provide evidence satisfactory to the Department that Telesat is bound to a contractual agreement with a satellite manufacturer and launch service provider for the placement of its satellite into the authorized orbital position by the Milestone 3 date above.

(6) Capacity to Meet Needs of Users and Service Providers in Canada

Telesat shall operate the satellite as a Canadian telecommunications common carrier and shall offer its satellite capacity at the 118.7°W orbital position on a non-discriminatory, first-come, first-served basis.

(6.1) Ku Band Capacity

Notwithstanding condition 6, Telesat shall offer its Ku band capacity at the 118.7°W orbital position on a non-discriminatory, first-come, first-served basis only to satellite users and service providers in Canada until January 1, 2005. Subject to contractual commitments already made to such users and service providers, a maximum of four Ku transponders per user or service provider will be permitted until January 1, 2005. Users or service providers in Canada may commit to more Ku capacity prior to January 1, 2005, but capacity above four Ku transponders will be conditional upon sufficient Ku capacity remaining available after all initial user and service provider needs have been met. This remaining Ku capacity will be allocated on a first-come, first-served basis, with no restriction or limit on the number of transponders contracted by a single entity; and at the completion of this process, any remaining Ku capacity may be made available to other entities.

(6.2) Call for Interest in C Band Capacity

Telesat shall initiate a public "call for interest" to determine Canadian needs for C band capacity prior to assigning such capacity to entities outside Canada. Should the C band capacity being made available by this licence exceed the identified Canadian requirements, Telesat may assign such excess capacity for service in other countries, subject to the approval of the appropriate regulatory authorities of the administration concerned.

(6.3) Additional C Band Capacity for Users and Service Providers

If a satellite user or service provider in Canada demonstrates a need for C band satellite capacity,

or if such a need for capacity should arise as a result of government initiatives to encourage the deployment of broadband connectivity to underserved communities by 2005, and Telesat is unable to accommodate those needs on the satellite capacity being made available by this licence Telesat shall, until January 1, 2005, use reasonable commercial efforts to find and offer sufficient C band capacity to support these needs. These efforts are limited to the amount of C band capacity equivalent to the amount not committed to Canadian users on the satellite by the licensee.

(7) Capacity for Public Institutions

Telesat shall offer public institutions, at no charge, the use of two C-band transponders on this satellite, or on a satellite otherwise acceptable to the Department, throughout the life of the new satellite authorized by this licence by December 22, 2003. Furthermore, Telesat shall offer one C-band transponder on its Anik E2 satellite, or on a satellite otherwise acceptable to the Department, also at no charge, to public institutions commencing June 21, 2001, and terminating when the new satellite at the 118.7°W position is available for service. To this end, Telesat and Industry Canada shall work jointly to develop the terms and conditions for access to this capacity by public institutions.

(8) Industrial Benefits

Prior to entering into a contract for the procurement of a satellite, Telesat shall demonstrate to the Department that it has made fair and reasonable efforts to promote Canadian manufacturers, designers, and suppliers of telecommunications components in the construction of the satellite facilities, and must provide an accounting of any Canadian industrial benefits achieved as a result of this effort.

(9) International Satellite Coordination

The satellite must be coordinated internationally prior to commencement of operation, and be notified to the ITU. To this end, Telesat must participate at its own expense in the coordination of the satellite network with the satellite and terrestrial networks of other countries; provide the Department in a form acceptable to the ITU with the satellite coordination and notification information required by the ITU; and ensure that the operation of the satellite conforms with any arrangements and agreements undertaken by Canada with respect to the coordination of the satellite.

(10) Administrative Due Diligence Information

Telesat must submit the administrative due diligence information, as set out in the ITU's *Resolution 49 (Rev. WRC-2000). Administrative due diligence applicable to some satellite radiocommunication Services*, to the Department in a form acceptable to the ITU, within 60 days of completing Milestone 2 as set out in condition 5.

(11) Satellite Licensing Information

Telesat shall submit the administrative licensing information, set out in Annex B of Client Procedures Circular 2-6-02 (CPC-2-6-02), *Licensing of Space Stations in Services other than the Amateur Satellite Service and the Broadcasting Satellite Service in Planned Bands*, at least 90 days in advance of the anticipated launch date of the satellite.

(12) Earth Station Licensing

All earth stations in Canada communicating with the satellite, except those exempted from the licensing requirement pursuant to the *Radiocommunication Act* or *Radiocommunication Regulations*, must be licensed prior to operation pursuant to Client Procedures Circular 2-6-01 (CPC-2-6-01), *Procedure for the Submission of Applications to License Fixed Earth Stations and to Approve the Use of Foreign Fixed-Satellite Service (FSS) Satellites in Canada*.

(13) Reporting

- a) Telesat must submit a detailed annual report to Industry Canada. This annual report must include:
- an update indicating progress made in all areas respecting this licence;
 - an update indicating continued compliance with all licence conditions;
 - an update on any negotiations undertaken pursuant to condition 9;
 - an update on activities related to providing capacity to public institutions in accordance with condition 7;
 - copies of any existing annual report for Telesat's fiscal year with respect to this authorization; and
 - a current listing of all satellite capacity being made available through this authorization, the capacity assigned to Canadian service providers and others, including the parties to which it is assigned, and any unused capacity including the terms of its availability.
- b) These annual reports are to be augmented with semi-annual interim reports providing an update on all aspects of the design, procurement, construction, coordination and launch of the satellite until the satellite has been put into service.
- c) The first annual report is due June 21, 2002, with the next semi-annual interim report due December 21, 2002. These reports are to be submitted, in writing, to the Director, Space and International Regulatory Activities, Radiocommunication and Broadcasting Regulatory Branch.

(14) Traffic Reports

- a) Telesat must submit a traffic report for the satellite at the commencement of operations at the 118.7° W position, and every three months thereafter, indicating:
- the transponders in use, and the date of bringing into use of each transponder;
 - the nature of the signals carried in each transponder; and
 - the channel capacity of each transponder in terms of the number of telephone channels carried in a transponder, or telephone channel equivalencies as determined by application of section 58 of the *Radiocommunication Regulations* including all supporting information used to make this determination.
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- b) These reports are to be submitted, in writing, to the Manager, Authorization Policy, Space and International Regulatory Activities, Radiocommunication and Broadcasting Regulatory Branch.

(15) Payment of Licence Fees

Telesat must pay the applicable annual radio authorization fees within 15 days of acceptance in orbit of the satellite from the manufacturer, and on or before March 31 of each year thereafter.

Response to Question 35

As described in the attached narrative, EchoStar requests a waiver of Section 25.133(a) of the Commission's Rules. To the extent the Commission concludes that a performance bond may be required by Section 25.137(d)(4) of the Commission's Rules, EchoStar believes that the Commission should also waive this requirement given the unique circumstances of this case.

Response to Question 36

In a Memorandum Opinion and Order released May 16, 2002, the Satellite Division of the International Bureau cancelled two conditional construction permits held by EchoStar affiliates for 22 channels at the 175° W.L. orbital location. *See In the Matter of EchoStar Satellite Corporation, Directsat Corporation, Direct Broadcasting Satellite Corporation, Consolidated Request for Additional Time to Commence Operation*, Memorandum Opinion and Order, DA 02-1164 (rel. May 16, 2002).

By Order released July 1, 2002, the International Bureau cancelled EchoStar's license for a Ka-band satellite system and dismissed a related modification application filed by EchoStar. *See In the Matter of EchoStar Satellite Corporation; Application for Authority to Construct, Launch, and Operate a Ka-band Satellite System in the Fixed-Satellite Service*, Memorandum Opinion and Order, DA 02-1534 (rel. July 1, 2002). On November 8, 2002, the International Bureau reinstated EchoStar's license for a Ka-band system as well as the related modification application. *See In the Matter of EchoStar Satellite Corporation; Application for Authority to Construct, Launch, and Operate a Ka-band Satellite System in the Fixed-Satellite Service*, Memorandum Opinion and Order, DA 02-3085 (rel. Nov. 8, 2002).

In a Memorandum Opinion and Order released April 29, 2004, the International Bureau denied, in part, four applications filed by EchoStar to operate GSO FSS satellites using the Ka and/or Extended Ku-bands at the 83° W.L., 105° W.L., 113° W.L., and 121° W.L orbital locations. *See In the Matter of EchoStar Satellite LLC, Applications for Authority to Construct, Launch, and Operate Geostationary Satellites in the Fixed-Satellite Service Using the Ka and/or Extended Ku Bands at the 83° W.L., 105° W.L., 113° W.L., and 121° W.L orbital locations*, Memorandum Opinion and Order, DA 04-1167 (rel. Apr. 29, 2004). EchoStar has petitioned for reconsideration of this decision.

[REDACTED]

In a Memorandum Opinion and Order released August 3, 2004, the International Bureau declared null and void the space station authorization held by VisionStar, an EchoStar affiliate, for use of the Ka-band at the 113° W.L. orbital location. *See VisionStar, Inc., Application for Modification of Authority to Construct, Launch and Operate a Ka-Band Satellite System in the Fixed Satellite Service*, Memorandum Opinion and Order, DA 04-2449 (rel. Aug. 3, 2004).

Response to Question 40

OWNERSHIP AND CORPORATE
OFFICERS AND DIRECTORS

OWNERSHIP

EchoStar Satellite L.L.C. is an indirect, wholly-owned subsidiary of EchoStar Communications Corporation (a Nevada corporation). The stockholders owning of record and/or voting 10 percent or more of the voting stock of EchoStar Communications Corporation include:

<u>Ownership Interest</u>	<u>Citizenship</u>	<u>Approx. Equity Interest¹</u>
Charles W. Ergen ² Chairman and CEO EchoStar Communications Corporation 9601 South Meridian Blvd. Englewood, CO 80112	USA	49.8%
Fidelity Management and Research Corporation 82 Devonshire Street Boston, MA 02109	USA (Massachusetts corporation)	15.1%

¹ As of December 11, 2003. Mr. Ergen and Fidelity Management and Research Corporation have an approximately 91% and 1% voting interest, respectively, in EchoStar Communications Corporation.

² Includes both Class A common and Class B common stock ownership. Class B common stock is owned through a family trust.

CORPORATE OFFICERS AND DIRECTORS³

EchoStar Communications Corporation

Executive Officers:

Charles W. Ergen - Chief Executive Officer
Soraya Cartwright - Executive Vice President - DISH Network
James DeFranco - Executive Vice President
Michael T. Dugan - President and Chief Operating Officer
David K. Moskowitz - Senior Vice President, General Counsel and Secretary
Steven B. Schaver - President - EchoStar International Corporation
Mark W. Jackson - Senior Vice President - EchoStar Technologies Corporation
Michael Schwimmer - Senior Vice President of Programming
Michael Kelly - Senior Vice President - DISH Network Service Corporation
O. Nolan Daines - Senior Vice President

Board of Directors:

Charles W. Ergen - Chairman
Steven R. Goodbarn
James DeFranco
David K. Moskowitz
Peter A. Dea
Cantey M. Ergen
Raymond L. Friedlob
C. Michael Schroeder

³ The address for all officers and directors of EchoStar Communications Corporation and EchoStar Satellite Corporation is 9601 South Meridian Blvd., Englewood, CO 80112.

EchoStar Satellite Corporation

Executive Officers:

Charles W. Ergen: President and Chief Executive Officer

James DeFranco: Executive Vice President

David K. Moskowitz: Senior Vice President, General Counsel and Secretary

Board of Directors:

Charles W. Ergen - Chairman

James DeFranco

David K. Moskowitz

TECHNICAL ANNEX

A.1 GENERAL DESCRIPTION

The ANIK-F3 satellite will operate at the 118.7° W.L. orbital location to provide international and domestic FSS ("Fixed Satellite Service") services to North America. Although the satellite will use the C-, Ku- and Ka-band frequencies, this technical annex only describes the Ku-band (14.0-14.5 GHz and 11.7-12.2 GHz) capabilities which are the subject of EchoStar's application to operate up to one million receive only earth stations in the United States.

A.2 ORBITAL LOCATION

Telesat Canada has authorization from Industry Canada to operate the satellite at 118.7 ° W.L. The orbital location is consistent with the Trilateral Agreement reached between Canada, Mexico and the United States of America in 1988.

A.3 FREQUENCY PLAN AND POLARIZATION

The ANIK-F3 satellite Ku-band frequency plan is given in Table A.3-1, indicating channel center, upper and lower frequencies, as well as channel polarizations. The channels are of nominal 27 MHz usable bandwidth, with a spacing between channel center frequencies of 30.5 MHz. Linear polarization only will be used in the uplink direction. In the downlink direction, each channel will be capable of operating either in linear polarization or circular polarization with the polarization being selected via ground command. For purposes of this application, it is envisaged that only the circular polarization will be used on the downlink, therefore only the circular polarization characteristics are described herein for that direction.

Table A.3-1 - Ku-Band Frequency Plan

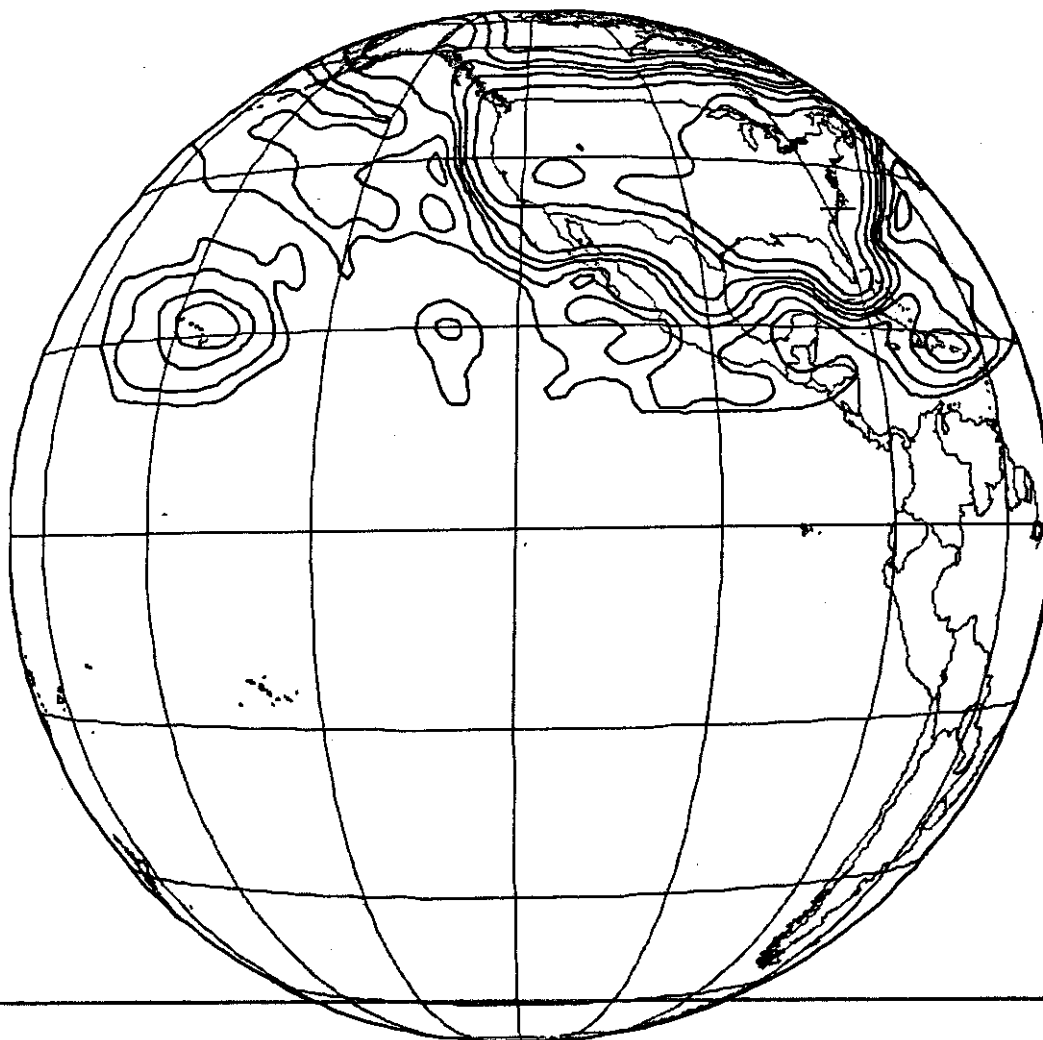
Txpdr #	UPLINK				DOWNLINK			
	Pof'n	Center Freq	F _{low}	F _{high}	Pof'n	Center Freq	F _{low}	F _{high}
KU - 1	HP	14,014.75	14,001.25	14,028.25	RHCP	11,714.75	11,701.25	11,728.25
KU - 3	HP	14,045.25	14,031.75	14,058.75	RHCP	11,745.25	11,731.75	11,758.75
KU - 5	HP	14,075.75	14,062.25	14,089.25	RHCP	11,775.75	11,762.25	11,789.25
KU - 7	HP	14,106.25	14,092.75	14,119.75	RHCP	11,806.25	11,792.75	11,819.75
KU - 9	HP	14,136.75	14,123.25	14,150.25	RHCP	11,836.75	11,823.25	11,850.25
KU - 11	HP	14,167.25	14,153.75	14,180.75	RHCP	11,867.25	11,853.75	11,880.75
KU - 13	HP	14,197.75	14,184.25	14,211.25	RHCP	11,897.75	11,884.25	11,911.25
KU - 15	HP	14,228.25	14,214.75	14,241.75	RHCP	11,928.25	11,914.75	11,941.75
KU - 17	HP	14,258.75	14,245.25	14,272.25	RHCP	11,958.75	11,945.25	11,972.25
KU - 19	HP	14,289.25	14,275.75	14,302.75	RHCP	11,989.25	11,975.75	12,002.75
KU - 21	HP	14,319.75	14,306.25	14,333.25	RHCP	12,019.75	12,006.25	12,033.25
KU - 23	HP	14,350.25	14,336.75	14,363.75	RHCP	12,050.25	12,036.75	12,063.75
KU - 25	HP	14,380.75	14,367.25	14,394.25	RHCP	12,080.75	12,067.25	12,094.25
KU - 27	HP	14,411.25	14,397.75	14,424.75	RHCP	12,111.25	12,097.75	12,124.75
KU - 29	HP	14,441.75	14,428.25	14,455.25	RHCP	12,141.75	12,128.25	12,155.25
KU - 31	HP	14,472.25	14,458.75	14,485.75	RHCP	12,172.25	12,158.75	12,185.75
KU - 2	VP	14,027.75	14,014.25	14,041.25	LHCP	11,727.75	11,714.25	11,741.25
KU - 4	VP	14,058.25	14,044.75	14,071.75	LHCP	11,758.25	11,744.75	11,771.75
KU - 6	VP	14,088.75	14,075.25	14,102.25	LHCP	11,788.75	11,775.25	11,802.25
KU - 8	VP	14,119.25	14,105.75	14,132.75	LHCP	11,819.25	11,805.75	11,832.75
KU - 10	VP	14,149.75	14,136.25	14,163.25	LHCP	11,849.75	11,836.25	11,863.25
KU - 12	VP	14,180.25	14,166.75	14,193.75	LHCP	11,880.25	11,866.75	11,893.75
KU - 14	VP	14,210.75	14,197.25	14,224.25	LHCP	11,910.75	11,897.25	11,924.25
KU - 16	VP	14,241.25	14,227.75	14,254.75	LHCP	11,941.25	11,927.75	11,954.75
KU - 18	VP	14,271.75	14,258.25	14,285.25	LHCP	11,971.75	11,958.25	11,985.25
KU - 20	VP	14,302.25	14,288.75	14,315.75	LHCP	12,002.25	11,988.75	12,015.75
KU - 22	VP	14,332.75	14,319.25	14,346.25	LHCP	12,032.75	12,019.25	12,046.25
KU - 24	VP	14,363.25	14,349.75	14,376.75	LHCP	12,063.25	12,049.75	12,076.75
KU - 26	VP	14,393.75	14,380.25	14,407.25	LHCP	12,093.75	12,080.25	12,107.25
KU - 28	VP	14,424.25	14,410.75	14,437.75	LHCP	12,124.25	12,110.75	12,137.75
KU - 30	VP	14,454.75	14,441.25	14,468.25	LHCP	12,154.75	12,141.25	12,168.25
KU - 32	VP	14,485.25	14,471.75	14,498.75	LHCP	12,185.25	12,171.75	12,198.75

A.4 SATELLITE TRANSMIT CAPABILITY

The ANIK-F3 satellite has a single, shaped transmit beam that operates in both RHC and LHC polarizations. The antenna gain contours of the beam are shown in Figure 4-1. The performance in both polarizations is nominally the same. The cross-polar isolation of the satellite transmit antennas will exceed 30 dB at all transmit frequencies. The peak antenna gain is 33.7 dBi.

Each transponder will use one 130 Watt (21.1 dBW) TWTA. The losses between the TWTA output and the antenna input amount to 1.8 dB. The resulting beam peak saturated EIRP level for the transponders will be 53 dBW.

Figure 4-1: ANIK-F3 Ku-Band Downlink Beam Coverage
(Contours shown are -2, -4, -6, -8, -10, -15, and -20 dB relative to the beam peak)

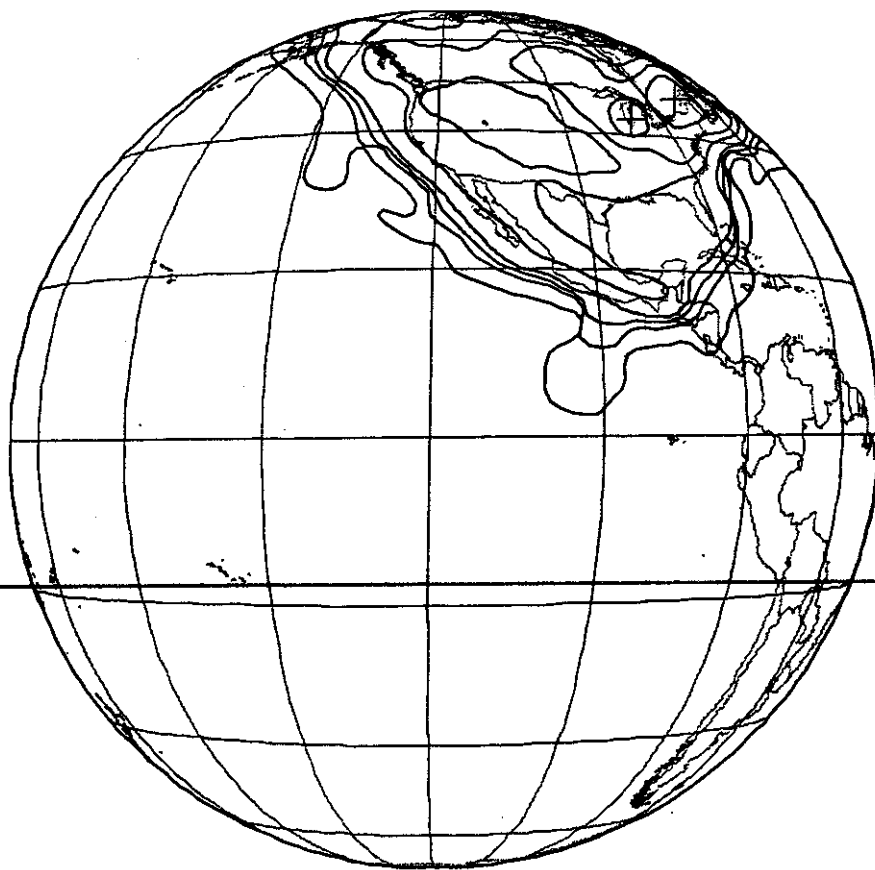


A.5 SATELLITE RECEIVE CAPABILITY

The uplink beam will operate in both horizontal and vertical polarizations. The antenna gain contours of the beam are shown in Figure 5-1. The performance in both polarizations is nominally the same. The cross-polar isolation of the satellite receive antennas will exceed 30 dB at all receive frequencies. The peak receive antenna gain for the beam is 32.7 dBi, with a noise temperature of 825 K, for a peak G/T of +3.5 dB/K.

Figure 5-1: ANIK-F3 Ku-Band Uplink Beam Coverage

(Contours shown are -2, -4, -6, -8, -10, -15, and -20 dB relative to the beam peak)



A.6 COMMUNICATIONS PAYLOAD

The communications payload will provide thirty-two (32) Ku-band RF channels with a 27 MHz usable bandwidth.

The uplink signals in both polarizations will be received by the satellite antennas. Limited filtering is applied before amplification in the 14 GHz LNAs (Low Noise Amplifier) and further amplification and down-conversion (to the 12 GHz downlink frequencies) in the receivers. The outputs of the receivers (one active receiver for each polarization) will be channelized by the IMUX (Input Multiplexer). The channelized signals are amplified by the CAMPs (Channel Amplifiers) with selectable ALC/fixed gain modes before further amplification by the TWTAs (Traveling Wave Tube Amplifiers). The individual RF channels from the same input polarization are then combined in the OMUXs (Output Multiplexers) and fed to the appropriate circularly polarized downlink beam. Appropriate redundancy switching is provided for all active payload equipment.

A.7 TT&C

The satellite Telemetry, Tracking and Command (TT&C) facilities for on-station operation will be located at Allan Park, Ontario, Canada and will be operated under the control of Telesat Canada. TT&C functions will take place at the band edges of the Ku-band. Transmission characteristics of the telecommand and telemetry link budgets are given in Tables A.7-1 and A.7-2, respectively.

Table A.7-1 – Telecommand Transmission Characteristics

Frequency (MHz)	Antenna Size (m)	Max Uplink EIRP (dBW)	Uplink Power Density (dBW per worst 4 kHz)	Uplink Polarization	RF BW (kHz)
14496.0	9.0/13.0	75 to 94	-24.5 to -8.7	H	1300
14498.0	9.0/13.0	75 to 94	-24.5 to -8.7	H	1300

Table A.7-2 – Telemetry Transmission Characteristics

Frequency MHz	S/C Pol.	Downlink EIRP (dBW)	Downlink Power Density (dBW per worst 4 kHz)	RF BW (kHz)
11701.75	H & CP	20.0	-22.6	300
11702.25	H & CP	20.0	-22.6	300

A.8 TRANSPONDER GAIN CONTROL AND SATURATION FLUX DENSITY

Each CAMP (one on every transponder) will be capable of being independently commanded to operate in either Fixed Gain Mode ("FGM") or Automatic Level Control ("ALC") mode. The ALC will incorporate a commandable attenuator to adjust the drive levels to the associated power amplifier.

In FGM, the actual gain for each transponder is controlled by ground command. At peak receive gain, the SFD will be adjustable in the range -100.5 to -80.5 dBW/m² in 1 dB steps. In ALC mode, the ALC circuit maintains constant drive level to the power amplifier over the SFD range of -100.5 to -80.5 dBW/m² at peak receive gain. To maintain correct operation over the lifetime of the satellite, the ALC will have a dynamic range of 10 dB.

The maximum transponder gain in either mode is 132.3 dB.

A.9 PREDICTED RECEIVER AND TRANSMITTER CHANNEL FILTER RESPONSE CHARACTERISTICS

The typical input frequency response of each Ku-band RF channel, as measured between the receive antenna and the power amplifier input, will fall between the limits shown in Table A.9-1. The typical overall frequency response of each Ku-band RF channel, as measured between the receive antenna input and transmit antenna, will fall between the limits shown in Table A.9-1.

Table A.9-1 - Typical Receiver and Transmitter Filter Responses

Offset from Channel Center Frequency (MHz)	Input Gain Frequency Response (dB)	Overall Gain Frequency Response (dB)
± 6.0	-0.6	-1.2
± 8.0	-0.7	-1.3
±10.0	-1.0	-1.9
± 12.0	-1.7	-3.3
±13.5	-2.7	-6.5
±17.0	-10	-25
±20.0	-33	-55
±30.5	-38	-65

A.10 EMISSION DESIGNATORS AND ALLOCATED BANDWIDTH OF EMISSION

The emission designator for the uplink and downlink is 24M0G7W. This emission has an allocated bandwidth of 24 MHz.

For TT&C, the emission designators and allocated bandwidths will be as follows:

Telecommand (including ranging): 1M30F9D (1.3 MHz)

Telemetry (including ranging): 300KG9D (300 kHz)

A.11 EARTH STATIONS

The primary subscriber Ku-band receive earth stations to be used with the ANIK-F3 satellite will be 66 cm equivalent antennas. Such terminals are expected to be deployed in large numbers across the service area. In certain geographical areas larger antennas will be used.

The feeder link earth stations will be located at EchoStar's existing facilities in Cheyenne, WY and/or Gilbert, AZ. EchoStar will separately file the necessary earth station applications with the FCC for the feeder link earth stations to be used with the ANIK-F3 satellite.

A.12 LINK BUDGETS

Table 12-1 provides representative broadcast link budgets to 66 cm equivalent receive antennas. The link budgets assume six adjacent interfering satellites nominally located at 113.0° W.L., 114.9° W.L., 116.8° W.L., 121° W.L., 123° W.L. and 125° W.L., with each adjacent satellite assumed to be operating with the following transmission levels:

Uplink Input Power Density: -50 dBW/Hz

Downlink EIRP Density: -21.5 dBW/Hz

In those geographic areas with lower downlink EIRP and/or when higher availability is desired, larger earth station antennas will be used.

Table A.12-1 – Representative Link Budgets

Representative Link Budgets				
Link Parameters		Clear Sky (New York)	Faded D/L (New York)	Faded D/L (Miami)
Link Geometry:				
Tx E/S Range to Satellite (Cheyenne)	(km)	37,754	37,754	37,754
Rx E/S Range to Satellite	(km)	39,094	39,094	37,882
Uplink (per carrier):				
Carrier Frequency	(MHz)	14,250	14,250	14,250
Tx E/S Antenna Diameter	(m)	13.2	13.2	13.2
Tx E/S Power to Antenna	(dBW)	21.0	21.0	21.0
Tx E/S Antenna Gain	(dB)	63.2	63.2	63.2
Tx E/S EIRP per Carrier	(dBW)	84.2	84.2	84.2
Atmospheric and Other Losses	(dB)	0.2	0.2	0.2
Free Space Loss	(dB)	207.1	207.1	207.1
Satellite:				
Total PFD at Satellite	(dBW/m ²)	-78.5	-78.5	-78.5
Gain Attenuation	(dB)	0.0	0.0	0.0
G/T towards Tx E/S	(dB/K)	-3.5	-3.5	-3.5
Sat'd EIRP	(dBW)	53.0	53.0	53.0
EIRP towards Rx E/S	(dBW)	51.1	51.1	51.7
Downlink (per carrier):				
Carrier Frequency	(MHz)	11,950	11,950	11,950
Atmospheric and Rain Losses	(dB)	0.1	3.5	4.3
Free Space Loss	(dB)	205.8	205.8	205.6
Rx E/S Antenna Diameter	(m)	0.66	0.66	0.66
Antenna Mis-pointing Error	(dB)	0.30	0.30	0.30
Rx E/S Antenna Gain	(dB)	36.3	36.3	36.3
Rx E/S G/T	(dB/K)	15.1	11.8	11.5
System (LNA+Sky) Noise Temp.	(K)	133	282	301
Total Link:				
Noise Bandwidth	(dB-Hz)	73.2	73.2	73.2
(C/N) - Thermal Uplink	(dB)	28.9	28.9	28.9
(C/N) - Thermal Downlink	(dB)	15.3	8.7	8.5
(C/I) up - Adjacent Satellite Interference	(dB)	37.1	37.1	37.1
(C/I) dn - Adjacent Satellite Interference	(dB)	9.9	9.9	10.5
(C/I) dn - XPOL Adjacent Satellite Interference	(dB)	21.8	21.8	22.4
(C/N) - Total Actual	(dB)	8.6	6.1	6.2
(C/N) - Total Required	(dB)	6.1	6.1	6.1
Excess Margin	(dB)	2.5	0.0	0.1
Availability	(%)	N/A	99.92	99.86

A.13 ADJACENT SATELLITE INTERFERENCE ANALYSIS

Telesat Canada and Satelites Mexicanos, S.A. de C.V. ("SatMex") have reached a coordination agreement, ratified by their respective national regulatory authorities, for the operation of their satellites in the orbital arc of 107.3° W.L. to 118.7° W.L., including coordination of the 116.8° W.L. and 118.7° W.L. locations (1.9 degree orbital separation). The EIRP and EIRP density levels stated in this technical annex are consistent with that coordination agreement.

EchoStar operates the ECHOSTAR-9 satellite at 121° W.L. For interference analysis purposes, the transmission characteristics provided in Table A13-1 can be considered representative of those used with the ECHOSTAR-9 satellite.

Table A13-1. Transmission characteristics of the ECHOSTAR-9 satellite.

Uplink EIRP (dBW)	80.0
Downlink EIRP (dBW)	52.5
Rx Antenna Gain (dBi)	36.3
Noise Bandwidth (dB-Hz)	73.2
C/N required (dB)	6.1
S.E. C/I Objective (dB)	18.3

Using the transmission parameters contained in Tables A12-1 (peak downlink EIRP of 53 dBW) and A13-1, ~~a topocentric angle of 2.53 degrees, a co-polar antenna sidelobe pattern of 29-25~~ $\log(\theta)$ and a cross-polar antenna sidelobe pattern of 19-25 $\log(\theta)$, the overall C/I for the ECHOSTAR-9 transmission can be calculated to be 16.2 dB giving a C/I deficit of 2.1 dB. This deficit is considered to be acceptable to EchoStar. Note that the interference analysis uses the conclusions of Recommendation ITU-R S.1555-0 to assess the combined interference of the RHCP and LHCP ANIK-F3 transmissions into the linearly polarized ECHOSTAR-9 transmissions.

A.14 ADDITIONAL TECHNICAL INFORMATION

Additional technical information is included in the enclosed electronic Schedule S form.

CERTIFICATION OF PERSON RESPONSIBLE FOR PREPARING
ENGINEERING INFORMATION

I hereby certify that I am the technically qualified person responsible for preparation of the engineering information contained in this pleading, that I am familiar with Part 25 of the Commission's rules that I have either prepared or reviewed the engineering information submitted in this pleading, and that it is complete and accurate to the best of my knowledge and belief.

/s/

Stephen D. McNeil
Telecomm Strategies Inc.
6404 Highland Drive
Chevy Chase, Maryland 20815
(301) 656-8969

Dated: Aug. 31, 2004

WHOLE RF CHANNEL SERVICE AGREEMENT

This whole RF channel service agreement is made and effective as of February4, 2004 (hereinafter referred to as the "Agreement Date"), by and between **TELESAT CANADA** (hereinafter collectively referred to with its permitted assigns and successors in interest as "Telesat"), a corporation continued and existing under the laws of Canada, and **ECHOSTAR SATELLITE L.L.C.**, formerly known as EchoStar Satellite Corporation (hereinafter collectively referred to with its permitted assigns and successors in interest as "Customer"), a limited liability company organized and existing under the laws of the State of Colorado in the United States of America.

WHEREAS

Customer has agreed to subscribe for, and Telesat has agreed to furnish to Customer, certain RF channel services operating on the [*****] on the ANIK F3 Satellite at the rates and subject to the other terms and conditions specified herein;

NOW THEREFORE in consideration of the mutual agreements contained in this Agreement and other good and valuable consideration (the receipt and adequacy of which are hereby acknowledged), the Parties agree as follows:

ARTICLE 1.0 – DEFINITIONS

- 1.1 As used in this Agreement and the recitals hereto, the following terms shall have the following meanings:

"Agreement" means this whole RF channel service agreement and all schedules, appendices and instruments in amendment of it; "hereof", "hereto", "herein" and "hereunder" and similar expressions mean and refer to this Agreement and not to any particular Article or Section; "Article" or "Section" of this Agreement followed by a number means and refers to the specified Article or Section of this Agreement.

"Agreement Date" shall have the meaning ascribed to that term in the introductory paragraph of this Agreement.

"ANIK F3 Capacity Offer" has the meaning ascribed thereto in Section 4.8.

"ANIK F3 Acceptance Date" means the date on which Telesat provides notice in writing to Customer that it has conducted an acceptance inspection of the ANIK F3 Satellite and is satisfied in its reasonable judgment that:

[*****

*****]

"ANIK F3 Procurement Agreement Date" means the date [*****
*****]

"ANIK F3 Satellite" means the communications satellite that includes a [*****] presently designated within Telesat as "ANIK F3", which may be procured by Telesat.

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"Authorization" means any authorization, order, permit, approval, forbearance decision, grant, licence, consent, right, franchise, privilege or certificate of any Governmental Entity of competent jurisdiction, whether or not having the force of law.

"Contract Fee" means an amount equal to [*****]
*****]

"Customer" shall have the meaning ascribed to that term in the introductory paragraph of this Agreement.

[*****]

"FCC" means the United States Federal Communications Commission and any successor agency thereto.

[*****]
*****]
*****]

"Governmental Entity" means any (i) multinational, federal, provincial, state, municipal, local or other government, governmental or public department, central bank, court, commission, board, bureau, agency or instrumentality, domestic or foreign; (ii) any subdivision, agent, commission, board, or authority of any of the foregoing; or (iii) any quasi-governmental or private body validly exercising any regulatory, expropriation or taxing authority under or for the account of any of the foregoing, in each case in the proper exercise of its governmental authority.

"Intended Purpose" means the use of the ANIK F3 Satellite at the Orbital Position to [*****]
*****]

"LIBOR" means the interest rate per annum, for three month deposits of United States Dollars made to prime banks in the London interbank market calculated on the basis of the actual number of days elapsed divided by 360. For greater certainty, the LIBOR rate on a given date will be established by reference to the British Bankers Association web page (<http://bankfacts.org.uk/public/libor>), providing information on historical LIBOR rates or such other web page as may replace it from time to time.

"Licensing Fees" has the meaning ascribed thereto in Section C.5 of Schedule 1 hereto.

[*****]
*****]
*****]
*****]
*****]
*****]
*****]
*****]

"Offer" has the meaning ascribed thereto in Section 4.6.

[*****]

"Parties" means Telesat, Customer and any other person who may become party to this Agreement and "Party" means any one of them.

"Per Calendar Year Cap" has the meaning ascribed thereto in Section 2.3(b).

[*****]
*****]

"Person" means an individual, partnership, limited liability company, corporation, joint stock company, trust, unincorporated association, joint venture or other entity or Governmental Entity and pronouns have similarly extended meaning.

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"Prepayment Fee" means an amount equal to [*****]
[*****]
[*****]

"Radio Authorization" means the authorization of the Minister of Industry (Canada) pursuant to the *Radiocommunication Act* (Canada) required for Telesat to operate the ANIK F3 Satellite at the Orbital Position, which authorization does not contain any conditions, restrictions or limitations that would prevent Customer from using the ANIK F3 Satellite for the Intended Purpose.

"Reduction Notice" has the meaning ascribed thereto in Section 2.1(b).

"Replacement Capacity" has the meaning ascribed thereto in Section 4.6.

"Replacement Satellite" has the meaning ascribed thereto in Section 4.6.

"Sale/Retention Notice" has the meaning ascribed thereto in Section 2.1(c).

"Service Commencement Date" means the [*****]
[*****]

"Telesat" shall have the meaning ascribed to that term in the introductory paragraph of this Agreement.

"Term" has the meaning ascribed thereto in Section 2.2.

"Terms and Conditions" means the terms and conditions for Full Period Whole RF Channel Service on the ANIK F3 Satellite set forth in Schedule 1.

[*****]
[*****]
[*****]
[*****]

1.2 Capitalized terms used in this Agreement and not otherwise defined in this Agreement have the same meanings as in the Terms and Conditions.

1.3 **Gender and Number.** Any reference in this Agreement to gender shall include all genders, and words importing the singular number only shall include the plural and vice versa.

1.4 **Entire Agreement.** This Agreement, including Schedules 1 and 2 attached hereto, and the agreements referred to herein or delivered pursuant hereto, supersedes all prior agreements, term sheets, letters of intent, understandings, negotiations and discussions, whether oral or written, of the Parties pertaining to the subject matter hereof, [*****]
[*****]
[*****]

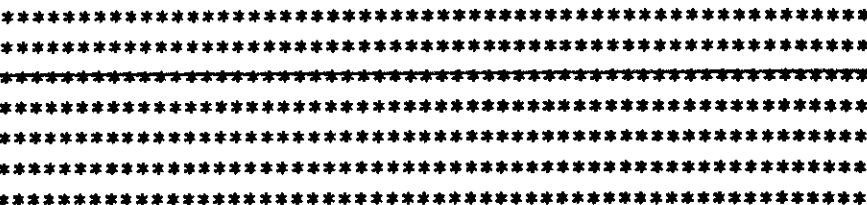
There are no representations, warranties, conditions or other agreements, express or implied, statutory or otherwise, between the Parties in connection with the subject matter of this Agreement, except as specifically set forth in this Agreement and the agreements referred to herein or delivered pursuant hereto.

1.5 **Amendments.** This Agreement may only be amended, modified or supplemented by a written agreement signed by each of the Parties.

1.6 **Incorporation of Schedules.** The schedules attached hereto shall for all purposes hereof form an integral part of this Agreement and are hereby incorporated by reference in their entirety.

1.7 **Currency.** All dollar amounts referred to in this Agreement are expressed in the currency of the United States of America.

2.1 Service Commitment on ANIK F3 Satellite

- (c)
- 
- The diagram shows a 2D hexagonal lattice structure. A horizontal line passes through the center of the lattice, representing a cut or a boundary. The lattice is labeled with 'a' and 'b' axes, indicating the lattice parameters. The diagram is labeled (c) in the top left corner.

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[illegible]

(d) *****

*****]

2.2 Term, Service Commencement Date and Satellite Construction

- (a) Subject to Section 5.7 and unless terminated earlier as provided herein, the term of this Agreement shall commence upon the Agreement Date and shall expire on the date which is [*****
*****] following the Service Commencement Date (the "Term").

- (b) Telesat shall use its commercially reasonable efforts to give Customer [*****] prior written notice of the ANIK F3 Acceptance Date. During the construction of the Anik F3 Satellite, Telesat shall within [*****] receipt by it of the quarterly status reports from the satellite manufacturer of the ANIK F3 Satellite, provide Customer with quarterly reports summarizing the current status of the ANIK F3 Satellite, including the then scheduled dates for completing construction and launching the ANIK F3 Satellite into orbit.
[*****]

*****] Notwithstanding the aforesaid, (i) all confidentiality requirements imposed by the satellite manufacturer and/or launch provider; and (ii) requirements imposed by an applicable Governmental Entity, including but not limited to requirements imposed by the United States Department of State, shall be complied with by Customer prior to delivery of any of the above information.

- (c) Telesat shall provide Customer with [*****] notice of:
[*****]
[*****]
[*****]

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- *****

*****]
- (d) [*****
*****]
- (i) [*****

*****]
- (ii) [*****

*****]
- (e) Telesat may during the construction of the ANIK F3 Satellite request changes or waivers to the Performance Parameters. [*****

*****]
- (f) [*****

*****]
- (i) [*****
*****]
- (ii) [*****
*****]
- (iii) [*****
*****]
- (iv) [*****
*****]

Prior to implementing a customer-requested change, Telesat shall provide in writing to Customer the ~~Anik F3 Satellite program cost impact (if any) of such change including but not limited to the cost impact (if any) from the satellite manufacturer, launch supplier and any incremental labour and financing costs incurred (or saved) by Telesat.~~ Customer must respond in writing within five (5) days from the date of the provision of the costing information, advising Telesat whether it wishes to proceed with such change. If Customer wishes to proceed with the change, then:

- (A) [*****

*****]

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(B) if there is an impact on the construction schedule for the ANIK F3 Satellite, the date as set out in Section 4.2(d) shall be adjusted accordingly on a day-for-day basis; and

(C) the Parties will amend the Performance Parameters forming Schedule 1 of this Agreement to conform with the change.

(g) [*****

*****]

2.3 Monthly Rate

(a) Customer shall pay, and there shall become due and payable, a monthly rate of [*****

*****] For the purposes of Rebates for Interruption only, which are determined in accordance with Section E of Schedule 1, the monthly rate shall be [*****

*****]

(b) [*****

*****]

2.4 Contract Fee and Prepayment Fee

(a) Customer will pay the Contract Fee to Telesat within [*****] days from the date upon which Telesat receives Board Approval in accordance with Section 5.7 in consideration for [*****

*****]

(i) [*****]

(ii) [*****]

[*****

*****]

2.5 Terms and Conditions

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ARTICLE 3.0 - REPRESENTATIONS AND WARRANTIES

3.1 Mutual Representations and Warranties

Each Party represents and warrants to the other Party, as follows and acknowledges and confirms that the other Party is relying thereon without independent inquiry in entering into this Agreement:

- (a) **Organization and Qualification.** It is a corporation (in the case of Telesat) or a limited liability company (in the case of Customer), duly incorporated, organized, continued or amalgamated, and validly existing and in good standing under the laws of the jurisdiction of its incorporation, organization, continuance or amalgamation, as the case may be, and is duly qualified, licensed or registered to carry on business under the laws applicable to it in all jurisdictions in which the nature of its assets or business as currently conducted makes such qualification necessary or where the failure to be so qualified would have a material adverse effect on its ability to perform its obligations hereunder.
 - (b) **Corporate Power.** It has all requisite corporate power and authority to execute and deliver this Agreement, to perform its respective obligations hereunder, to own its properties and to carry on its business as now conducted and to consummate the transactions contemplated hereby.
 - (c) **Authorizations, etc.** Subject to Section 5.7, the execution and delivery by it of this Agreement and the performance of its respective obligations hereunder, and the consummation by it of the transactions contemplated hereby, have been duly authorized by all requisite corporate action.
 - (d) **Execution and Binding Obligation.** This Agreement has been duly executed and delivered by it and constitutes legal, valid and binding obligations of it, enforceable against it in accordance with its terms, except insofar as enforceability may be affected by applicable Laws relating to bankruptcy, insolvency, reorganization, moratorium or similar laws now or hereafter in effect affecting creditors' rights generally or by principles governing the availability of equitable remedies.
 - (e) **No Breach or Violation.** The execution and delivery of this Agreement and performance of its respective obligations under this Agreement and compliance with the terms, conditions and provisions hereof will not conflict with or result in a breach of any of the terms, conditions or provisions of (i) its organizational or constituting documents or by-laws; (ii) any applicable Law; (iii) any contractual restriction binding on it or affecting it or its properties (without regard to requirements of notice, passage of time or elections of any Person); or (iv) any judgement, injunction, determination or award which is binding on it. It has not retained or authorized anyone to represent it as a broker or finder in connection with this Agreement. In connection with its performance under this Agreement, it shall comply in all material respects with all applicable laws, regulations, or orders of any Governmental Entity.
 - (f) **Legal Proceedings.** There is no judgement or order outstanding, or any action, suit, complaint, proceeding or investigation by or before any Governmental Entity or any arbitrator pending, or to the best of its knowledge, threatened, which, if adversely determined, would be reasonably expected to have a material adverse effect on its ability to consummate the transactions contemplated hereby or perform its obligations hereunder.
-

ARTICLE 4.0 – ADDITIONAL COVENANTS AND TERMINATION

4.1 Use of the ANIK F3 Satellite for the Intended Purpose

- (a) Telesat agrees, at its sole cost and expense, (except as set out in Section 2.3 and Section C.5 of Schedule 1) to obtain and maintain all [*****] Telesat further agrees to file [*****] soon as reasonably practicable after the date upon which Telesat receives Board Approval in accordance with Section 5.7. In accordance with requests made and instructions given by Telesat, Customer shall use commercially reasonable efforts at Telesat's reasonable expense, to support Telesat's efforts to obtain and maintain all [*****].

(b)

4.2 Termination Prior to Service Commencement Date

This Agreement may be terminated and the transactions contemplated by this Agreement may be abandoned at any time prior to the Service Commencement Date (except where a different timeframe has been expressly stated below):

- (a) [*****

*****]

- (b) [REDACTED];

- (c) `[*****
*****];`

- (d) *****

4.3 [*****]

```
*****
*****
*****
*****
*****
*****
*****
*****
```

4.4 Liabilities in Event of Termination

- (a) Subject to Section 4.4(b) and except as expressly set forth to the contrary herein, the termination or expiration of this Agreement will in no way limit any obligation or liability of either Party based on or

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arising from a breach or default by such Party with respect to any of its representations or warranties contained in this Agreement, or with respect to any of its covenants or agreements contained in this Agreement which by their terms were to be performed prior to the date of termination or expiration, nor shall any such termination or expiration release either Party from any liabilities or obligations under this Agreement, [*****

*****]

(b) [REDACTED]

4.5 General Rights and Remedies

Subject to the exclusions and limitations of liability in the Terms and Conditions, in the event any representation or warranty of any Party contained in this Agreement shall prove to have been incorrect in any material respect when made or deemed to have been made or if any Party fails to perform, observe or comply with any of its covenants or agreements contained in this Agreement, the other Party will be entitled to whatever rights or remedies are available at law or in equity.

4.6 [*****]

【*****】

(1) [*****]

(ii) [*****

*****]

(iii) [*****
*****]

(iv) [*****]

[illegible][illegible]

(2)

X

1 (q)

✱

✻✻

$$*] (p)$$

**

(a)

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[illegible]

4.9 [*****]

[
*
*
*].

ARTICLE 5.0 – MISCELLANEOUS

5.1 Parties Obligated and Benefited

This Agreement will be binding upon the Parties and their respective permitted assigns and successors in interest and will inure solely to the benefit of the Parties and their respective permitted assigns and successors in interest, and no other Person will be entitled to any of the benefits conferred by this Agreement or to rely on the provisions hereof in any action, suit, proceeding, hearing or other forum. [*****

hearing or other forum. [*****]

*****]

- (a) [*****]
(b) [*****]
(c) [*****
*****]
(d) [*****

*****];

```
[*****  
*****  
*****  
*****
```

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[*****

*****]

5.2 Notices

Any notice required or permitted to be given hereunder shall be in writing and shall be sent by facsimile transmission, or by first class certified mail, postage prepaid, or by overnight courier service, charges prepaid, to the party to be notified, addressed to such party at the address set forth below, or sent by facsimile to the fax number set forth below, or such other address or fax number as such party may have substituted by written notice to the other party. The sending of such notice with confirmation of receipt thereof (in the case of facsimile transmission) or receipt of such notice (in the case of delivery by mail or by overnight courier service) shall constitute the giving thereof.

Telesat Canada
1601 Telesat Court
Ottawa ON Canada K1B 5P4
Fax: [*****]
Attention: Vice President, Law

Customer
EchoStar Satellite L.L.C.
9601 S. Meridian Blvd.
Englewood, Colorado 80112 U.S.A.
Fax: [*****]
Attention: Charles W. Ergen, President and CEO
EchoStar DBS Corporation, its sole member

Please Note: Above address is for overnight courier service only. For first class certified mail, please use:

P.O. Box 6655
Englewood, Colorado 80155

With a copy to:
EchoStar Satellite L.L.C.
(same addresses and fax number as above)
Attention: David K. Moskowitz, SVP and General Counsel
EchoStar DBS Corporation, its sole member

5.3 Expenses

Except as otherwise expressly provided herein, all costs and expenses (including the fees and disbursements of legal counsel, investment advisers and auditors) incurred in connection with this Agreement and the transactions contemplated hereby shall be paid by the Party incurring such expenses.

5.4 Non-Merger

Except as otherwise expressly provided in this Agreement, the covenants, representations and warranties of the Parties contained in this Agreement shall not merge on and shall survive the Service Commencement Date and, notwithstanding any investigation made by or on behalf of either Party, shall continue in full force and effect throughout the Term.

5.5 Governing Law

This Agreement shall be governed by and interpreted in accordance with the laws

[illegible]

This Agreement may be executed by facsimile and/or in one or more counterparts, each of which shall be deemed an original and all of which, taken together, shall constitute one and the same instrument.

Notwithstanding anything to the contrary contained herein, this Agreement (with the sole exception of Section 4.9) shall not become effective until Telesat receives the approval of its Board of Directors. Telesat agrees that it shall request such approval at its next regularly-scheduled Board of Directors meeting, [*****] Promptly thereafter, Telesat shall notify Customer whether approval was received. In the event that the Board of Directors of Telesat approves this Agreement, then the Agreement shall be deemed to be effective as of the date first set forth above.

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IN WITNESS WHEREOF each of the parties hereto has duly executed this Agreement under the hands of its proper officers duly authorized in that behalf effective as of the Agreement Date.

TELESAT CANADA

By: _____

Name: Laurier J. Boisvert

Title: President and Chief Executive Officer

ECHOSTAR SATELLITE L.L.C.

By: EchoStar DBS Corporation, its sole member

By: _____

Charles W. Ergen

President and Chief Executive Officer

March 25, 2004

VIA FACSIMILE ONLY: [*****]

EchoStar Satellite L.L.C.
9601 S. Meridian Blvd.
ENGLEWOOD, Colorado 80112
U.S.A.

Attn: Charles W. Ergen, President and Chief Executive Officer
EchoStar DBS Corporation, its sole member

Re: Telesat Board Approval of Whole RF Channel Service Agreement between Telesat
Canada ("Telesat") and EchoStar Satellite L.L.C. ("Echostar") dated as of
February 4, 2004 (the "Anik F3 Agreement")

Dear Mr. Ergen:

Please be advised that, as contemplated in Section 5.7 of the Anik F3 Agreement, Telesat requested the approval of its Board of Directors at [*****]. Telesat's board approval of the Anik F3 Agreement [*****]

*****] Due to the foregoing, Telesat acknowledges and agrees that the Anik F3 Agreement shall be amended such that:

- (i) the Contract Fee will be due to Telesat within [*****] from the date upon which Telesat's board approval becomes effective, [*****]

*****];

- (ii) the Prepayment Fee will be due to Telesat on the later to occur of [*****]

*****]

- (iii) in Sections 4.1(a) and 4.1(b), each use of the words "the date upon which Telesat receives Board Approval in accordance with Section 5.7" shall be

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replaced with "the date upon which Telesat's board approval becomes effective";

(iv) [*****

*****]

(v) [*****

*****]

(vi) [*****

*****]

[*****

*****]

All capitalized terms not defined herein shall have the meaning ascribed to them in the Anik F3 Agreement. ~~Except as expressly modified herein, the Anik F3 Agreement shall remain in full force and effect in accordance with its terms and conditions.~~

Please acknowledge your concurrence with the above by signing where indicated below.

Yours truly,

TELESAT CANADA

By: _____
Laurier J. Boisvert

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President and Chief Executive Officer

ACKNOWLEDGED AND AGREED:

ECHOSTAR SATELLITE L.L.C.

By: EchoStar DBS Corporation, its sole member

By: _____
Charles W. Ergen
President and Chief Executive Officer

Confidential Treatment Requested—Marked Copy
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May 5, 2004

VIA FACSIMILE ONLY: [*****]

EchoStar Satellite L.L.C.
9601 S. Meridian Blvd.
ENGLEWOOD, Colorado 80112
U.S.A.

Attn: Charles W. Ergen, President and Chief Executive Officer
EchoStar DBS Corporation, its sole member

Dear Mr. Ergen:

Re: Second Amendment to the Whole RF Channel Service Agreement
between Telesat Canada ("Telesat") and EchoStar Satellite L.L.C.
("EchoStar") dated as of February 4, 2004 (the "Anik F3
Agreement")

Telesat acknowledges and agrees that the Anik F3 Agreement shall be amended as follows:

[*****

*****]

All capitalized terms not defined herein shall have the meaning ascribed to them in the Anik F3 Agreement. Except as expressly modified herein, the Anik F3 Agreement shall remain in full force and effect in accordance with its terms and conditions.

[*****

*****]

Confidential Treatment Requested—Marked Copy

Confidential Treatment Requested—Marked Copy
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Please acknowledge EchoStar's agreement with the above amendment by signing where indicated below.

Yours truly,

TELESAT CANADA

By: _____
Paul D. Bush
V.P., Broadcasting & Corporate Development

By: _____
Jennifer E. Perkins
V.P., Law

ACKNOWLEDGED AND AGREED:

ECHOSTAR SATELLITE L.L.C.

By: EchoStar DBS Corporation, its sole member

By: _____
Charles W. Ergen
President and Chief Executive Officer

Confidential Treatment Requested—Marked Copy